

Scope of Claims

1. (Amended) An impulse heat sealer and a heater wire therefor which comprises at least a power source circuit, a heater connected thereto and a press mechanism incorporating the heater, wherein by feeding a comparatively large current from the power source circuit for a short time to the heater including a heater wire which is covered by such as fluoro resin coated glass tape to heat the same and by interrupting the same for cooling, such as polyethylene and a heat meltable resin caught in the press mechanism is melted and adhered, characterized in that the heater wire is formed in such a manner that a thin plate of electrically high resistance metal such as iron chromium which is thinned extremely by means of such as rolling and is properly strengthened such as by tempering is processed such as by photoetching in such a configuration that the width of electrode portion or a portion which is required to suppress heat generation is broadened so far as permitted, a heat generating portion is shaped into a desired configuration with a narrow uniform width, then the both portions are integrated so as to form a self independent body.
2. A heater wire according to Claim 1, characterized in that in order to prevent swelling of a seal line or plane to a side of such as a main body of a polyethylene bag caught

in the press mechanism and the breakage thereof should be prevented, the heater wire is configured in such a manner that either the width broadened portion of the electrode portions at the side facing to the main body is eliminated or when the broadened portions are provided at both sides of the electrode portions, the broadened portions facing the main body is retreated further away in comparison with another broadened portion at the opposite bag edge side.

3. (Amended) An impulse heat sealer, characterized in that the impulse heat sealer is structured in such a manner that heat generating portions of a single or a plurality of heater wires are arranged to come close within small gaps of certain degree formed by itself or with the others to thereby gather the heat generated together through heat diffusion at a resultant seal line or plane to disappear the gaps.
4. A heater wire according to Claim 1, characterized in that the heater wire is configured in a zigzag shape with a small gap which is caused to disappear through heat diffusion on a resultant seal line or plane, and is spread over a desired configuration for the heat generating portion.
5. (Amended) A book binding machine and laminator which comprises at least a power source circuit, a heater connected thereto and a press mechanism incorporating the heater, characterized in that the heater is formed by

combining a heater wire such as by a fluoro resin coated glass tape, the heater wire is formed in such a manner that a thin plate of electrically high resistance metal such as iron chromium which is thinned extremely by means of such as rolling and is properly strengthened such as by tempering is processed to form an electrode portion or a portion which is required to suppress heat generation having broadened width so far as permitted and a heat generating portion formed into a zigzag shape with a narrow uniform width and with a small gap which disappears heating unevenness at a resultant sealed portion through heat diffusion and covering over an entire desired configuration thereof, the heater is heated by being fed a comparatively large current from the power source for a short time and is cooled by interrupting the same, thereby, by making use of such as polyethylene and a heat meltable resin caught in the press mechanism as adhesive such as book binding use paper sheets and laminate use films are melt-adhered.